

**COASTAL STORM SURVEY**

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**BUREAU OF COASTAL ENGINEERING - TOMS RIVER NJ**

**12:00 P.M. WEDNESDAY, OCTOBER 26, 2005**



NEW JERSEY COASTLINE INCLUDING RARITAN AND DELAWARE BAYS

THE COMBINATION OF A LARGE HIGH PRESSURE CENTERED OVER EASTERN CANADA, HURRICANE WILMA, AND THE REMNANTS OF T.S. ALPHA OFFSHORE, AND A COLD FRONT APPROACHING FROM THE GREAT LAKES RESULTED IN THE FORMATION OF A POWERFUL HYBRID COASTAL STORM THAT QUICKLY DEEPEMED JUST EAST THE DELMARVA PENINSULA. THE RESULTING LOW BROUGHT WITH IT STRONG ONSHORE WINDS, MODERATE COASTAL FLOODING AND SEVERE EROSION ON ALL ATLANTIC-FACING BEACHES STATEWIDE. SUSTAINED NORTHEAST WINDS PEAKED AROUND 40 KNOTS EARLY MONDAY MORNING, RESULTING IN LARGE BREAKERS EXCEEDING 12-FEET ALONG THE NEW JERSEY SHORE.

THE BUREAU OF COASTAL ENGINEERING CONDUCTED A PRELIMINARY SURVEY OF THE NEW JERSEY COASTLINE ON TUESDAY, OCTOBER 25<sup>TH</sup>, AND AGAIN TODAY, WEDNESDAY, OCTOBER 26<sup>TH</sup>, THE CUMULATIVE RESULTS OF WHICH ARE ATTACHED TO THIS REPORT.

**AREAS OF ATTENTION:**

LONG BEACH ISLAND BEACHES AND DUNE SYSTEMS HAVE BEEN SIGNIFICANTLY ERODED LEAVING COASTAL INFRASTRUCTURE VULNERABLE TO STORM SURGE AND DIRECT WAVE ATTACK.

SPECIFICALLY: HARVEY CEDARS - OCEAN COUNTY  
NORTH BEACH - OCEAN COUNTY  
LONG BEACH TOWNSHIP - OCEAN COUNTY  
BRANT BEACH - OCEAN COUNTY  
BEACH HAVEN / HOLGATE - OCEAN COUNTY

**EMERGENCY REPAIRS NEEDED:**

HARVEY CEDARS - OCEAN COUNTY  
*EMERGENCY BEACHFILL PROJECT PENDING.*

BEACH HAVEN - OCEAN COUNTY (LEEWARD & MERRIVALE AVE.)  
*TOWNSHIP CONDUCTING EMERGENCY SAND PLACEMENT UNDER CURRENT BEACH MAINTENANCE PERMIT.*

**FOLLOW-UP INSPECTIONS:**

ADDITIONAL FOLLOW-UP INSPECTIONS WILL BE CONDUCTED ON AN AS-NEEDED BASIS.

**EROSION RATING:**

THE CUMULATIVE EFFECTS OF THIS PAST WEEK'S STORMS HAS RESULTED IN ATLANTIC FACING BEACHES SUSTAINING SEVERE EROSION STATEWIDE, WITH THE EXCEPTION OF THE DELAWARE BAY EXPOSURES.

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| <b>Perth Amboy</b>        | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>South Amboy</b>        | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>Old Bridge</b>         | No significant erosion reported.<br>Significant damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Cliffwood Beach</b>    | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>Keyport</b>            | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>Union Beach</b>        | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>Keansburg</b>          | No significant erosion reported.<br>Significant damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Bayshore Floodgate</b> | No significant erosion reported.<br>Significant damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Port Monmouth</b>      | No significant erosion reported.<br>Significant damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Belford</b>            | No significant erosion reported.<br>Minor damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Leonardo</b>           | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>Atlantic Highlands</b> | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>Highlands</b>          | No significant erosion reported.<br>Moderate coastal flooding reported.   |
| <b>Sea Bright</b>         | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.<br>Severe coastal flooding reported.                       |
| <b>Monmouth Beach</b>     | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.<br>Severe coastal flooding reported.                       |
| <b>Long Branch</b>        | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Localized severe erosion at Seaview and Brighton Aves.<br>Minor coastal flooding reported. |
| <b>Elberon</b>            | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>No damage reported.  |

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| <b>Allenhurst</b>      | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Deal</b>            | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Loch Arbour</b>     | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Asbury Park</b>     | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Windblown sand reported.  |
| <b>Ocean Grove</b>     | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Windblown sand reported.  |
| <b>Bradley Beach</b>   | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Windblown sand reported.  |
| <b>Avon by the Sea</b> | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Windblown sand reported.  |
| <b>Belmar</b>          | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Windblown sand reported.  |
| <b>Spring Lake</b>     | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Windblown sand reported.  |
| <b>Sea Girt</b>        | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Windblown sand reported.  |
| <b>Manasquan</b>       | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Damage to parking area at 3rd & Riverside reported.<br>Moderate coastal flooding reported.          |
| <b>Point Pleasant</b>  | A vertical sloping cut 3' to 4' high by 25' - 50' wide was reported.<br>No damage reported.  |
| <b>Bayhead</b>         | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Severe damage to dunes reported.<br>Damage to dune crossovers and fencing reported.                 |
| <b>Mantaloking</b>     | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Severe coastal flooding reported.<br>Damage to dune fencing reported.                               |
| <b>Lavallette</b>      | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Damage to dune fencing reported.<br>Minor coastal flooding reported.                                |
| <b>Bricktown</b>       | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Moderate coastal flooding reported.   |
| <b>Ortley Beach</b>    | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>Significant damage to dunes and undermining of stairs reported.<br>Damage to dune fencing reported. |

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| <b>Seaside Heights</b>         | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Seaside Park</b>            | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Island Beach State Park</b> | A vertical sloping cut 3' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Barnegat Light</b>          | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Loveladies</b>              | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.<br>Minor coastal flooding reported.     |
| <b>Harvey Cedars</b>           | A vertical cut (scarp) 4' to 5' high by 50' to 75' wide was reported.<br>Severe damage to dunes reported.<br>Damage to dune fencing reported.    |
| <b>North Beach</b>             | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Severe damage to dunes reported.<br>Moderate coastal flooding reported. |
| <b>Surf City</b>               | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Ship Bottom</b>             | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Long Beach Township</b>     | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.<br>Moderate coastal flooding reported.  |
| <b>Brant Beach</b>             | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Severe damage to dunes reported.<br>Moderate coastal flooding reported. |
| <b>Beach Haven</b>             | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Severe damage to dunes reported.<br>Moderate coastal flooding reported. |
| <b>Holgate</b>                 | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>Severe damage to dunes reported.<br>Moderate coastal flooding reported. |
| <b>Brigantine</b>              | A vertical sloping cut 2' to 3' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.   |
| <b>Atlantic City</b>           | A vertical sloping cut 4' to 5' high by 50' to 75' wide was reported.<br>No damage reported.   |
| <b>Ventnor</b>                 | A gentle sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Significant damage to dunes reported.                                     |
| <b>Margate</b>                 | A gentle sloping cut 2' to 3' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.   |

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| <b>Longport</b>                    | A gentle sloping cut 2' to 3' high by 50' to 75' wide was reported.<br>Minor damage to dunes reported.  |
| <b>Ocean City</b>                  | A vertical sloping cut 3' to 4' high by 50' to 75' wide was reported.<br>Localized severe erosion reported at Pennlyn and Morningside.                              |
| <b>Strathmere</b>                  | A vertical sloping cut 2' to 3' high by 50' to 75' wide was reported.<br>Localized severe erosion between Sumner and Techumseh.<br>Minor damage to dunes reported.  |
| <b>Whale Beach</b>                 | A vertical cut (scarp) 5' to 6' high by 25' - 50' wide was reported.<br>Geotubes exposed, overtopped sand on street.  |
| <b>Sea Isle City</b>               | A vertical sloping cut 2' to 4' high by 50' to 75' wide was reported.<br>Localized severe erosion between 80th and 84th Streets.<br>Minor damage to dunes reported. |
| <b>Avalon</b>                      | A vertical cut (scarp) 3' to 4' high by 25' - 50' wide was reported.<br>Damage to outfall pipe at 13th Street reported.<br>Damage to dune fencing reported.         |
| <b>Stone Harbor</b>                | A vertical sloping cut 2' to 3' high by 50' to 75' wide was reported.<br>No damage reported.  |
| <b>North Wildwood</b>              | A vertical sloping cut 3' to 4' high by 75' to 100' wide was reported.<br>Significant damage to dunes reported.<br>Moderate coastal flooding reported.              |
| <b>Wildwood Crest</b>              | A vertical sloping cut 2' to 3' high by 75' to 100' wide was reported.<br>Minor coastal flooding reported.  |
| <b>Wildwood</b>                    | A vertical sloping cut 2' to 3' high by 75' to 100' wide was reported.<br>Moderate coastal flooding reported.   |
| <b>Cape May City</b>               | A vertical sloping cut 1' to 4' high by 50' to 75' wide was reported.<br>Minor coastal flooding reported.   |
| <b>Cape May Point State Park</b>   | A vertical sloping cut 3' to 6' high by 25' - 50' wide was reported.<br>Minor coastal flooding reported.  |
| <b>Cape May Point Borough</b>      | A vertical cut (scarp) 2' to 5' high by 25' - 50' wide was reported.<br>Moderate coastal flooding reported.   |
| <b>Delaware Bay and River Area</b> | A vertical sloping cut 1' to 2' high by less than 25' wide was reported.<br>Minor coastal flooding reported.<br>Reeds Beach Road undermined from storm event.       |